

ABSTRACT OF THE DISCLOSURE

5 A system is provided for protecting a wavelength division
multiplexing optical communications network against
communication failures at the link, wavelength and fiber
layers. The system includes failure detectors for detecting
communication failures of the network and for generating
failure signals in response thereto, and protection switching
elements for receiving the failure signals and controlling the
10 protection switching in response thereto. The system also
includes a first set of intralayer communication channels
within each of the link, wavelength and fiber layers for
sending the failure signals between the failure detectors and
the protection switching elements, and a second set of
15 interlayer communication channels between adjacent ones of the
link, wavelength and fiber layers for sending the failure
signals between the failure detectors and the protection
switching elements.

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